VPL-CX6/CS6/EX1/ES1

Data projectors

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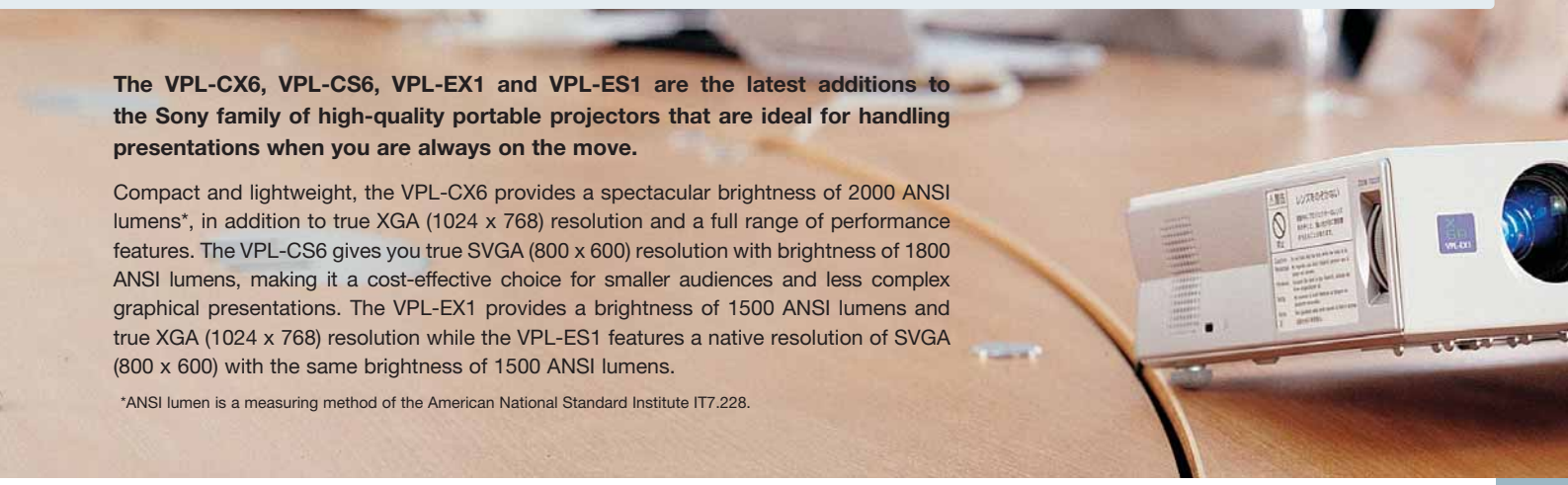
An impressive line-up of projectors with superb brightness and fashionable design – the preferred choice for professional presentations.

The VPL-CX6, VPL-CS6, VPL-EX1 and VPL-ES1 are the latest additions to the Sony family of high-quality portable projectors that are ideal for handling presentations when you are always on the move.

Compact and lightweight, the VPL-CX6 provides a spectacular brightness of 2000 ANSI lumens*, in addition to true XGA (1024 x 768) resolution and a full range of performance features. The VPL-CS6 gives you true SVGA (800 x 600) resolution with brightness of 1800 ANSI lumens, making it a cost-effective choice for smaller audiences and less complex graphical presentations. The VPL-EX1 provides a brightness of 1500 ANSI lumens and true XGA (1024 x 768) resolution while the VPL-ES1 features a native resolution of SVGA (800 x 600) with the same brightness of 1500 ANSI lumens.

*ANSI lumen is a measuring method of the American National Standard Institute IT7.228.



Intelligent Auto Setup

Ready to present? Just turn on the power and your projector initiates a host of sophisticated functions. Your previous settings are held in memory and can be recalled automatically.

Powered Lens Protector

When the power is switched on, the powered lens protector opens automatically. You'll never waste time looking for a missing lens cover again - it's always safe on your projector.

Powered Tilt Adjuster and Auto Keystone Correction

A power-operated tilt adjuster sets the projector's shooting angle, and keystone distortion is automatically corrected according to the tilt angle. The tilt angle is adjustable from the remote commander and the new setting is retained in memory. Keystone distortion can be corrected up to 15 degrees. This means you can project images with correct geometry even where installation space is limited.

If the user prefers not to use the auto setup function, an Emergency mode is provided which enables the lens protector and tilt angle to be manually adjusted. This function over-rides the motorised mechanism.

Smart APA (Auto Pixel Alignment)

A Smart APA function automatically sizes and adjusts your image display for optimum picture performance - allowing you to concentrate on your presentation rather than time-wasting technical adjustments.

Auto Input Search

Because the VPL-CX6, VPL-CS6, VPL-EX1 and VPL-ES1 models can automatically detect the presence of a connected input signal, images are projected instantly the moment you turn on the power or push the input button. Ready to present? Just turn on the power and your projector initiates a host of sophisticated functions. Your previous settings are held in memory and can be recalled automatically.

Superb Brightness up to 2000 ANSI Lumens

For superb brightness, these new Sony portable projectors use the original Sony Virtual Light system with a super-high-aperture liquid-crystal panel and a striking ultra-bright UHP lamp. An elliptical reflector provides an extremely smooth surface that collects light with exceptional efficiency, and a concave lens provides a very small and precise light source. In combination, these innovations give you bright, sharp and eye-pleasing images.

Short-Focal-Length Zoom Lens

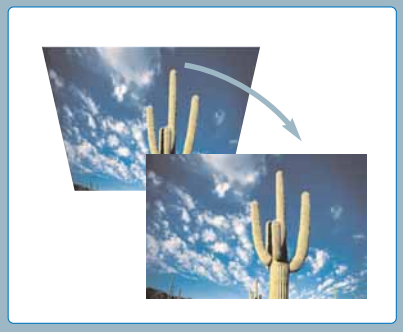
These projectors are equipped with an all-new zoom lens that has a focal length of 2.5m at 80 inches for the VPL-CX6 and VPL-CS6 and 2.3 m at 80 inches for the VPL-ES1, enabling large sized images to be projected, even in a limited space.

* The focal length of the VPL-EX1 is 3.1 m at 80 inches.

Cutting-Edge Style, Carry-On Portability

With simple, elegant cabinet designs, the VPL-CX6, VPL-CS6, VPL-EX1 and VPL-ES1 models take projector styling to new levels. Only the most commonly used buttons are located on the sleek top panel, giving the cabinet a flat, smooth appearance and making it easy to handle when you're in transit. On the VPL-CX6, VPL-CS6 and VPL-EX1 other controls and connectors are conveniently concealed behind a cover when not in use. To lighten your load, all four models weigh less than 2.8 kg and are provided with a soft case, so your projector can be at your side and ready for action - anywhere, any time.

Powered Lens Protector



Auto Keystone Correction

Powered Tilt Adjuster

Additional Professional Features

On-Board Audio Support

An audio amplifier and speaker are included, so you can provide audio in your presentations without adding an external amp and speaker system.

On-Screen Display in 13 Languages

The on-screen display for projector control is available in thirteen languages: English, Dutch, French, Italian, German, Spanish, Portuguese, Russian, Swedish, Norwegian, Japanese, Chinese, and Korean. You can also alter the screen position and colour of the display to suit your preference.

Password-Authentication System

This function restricts unauthorised use of the projector. Once a password has been set, the VPL-CX6, VPL-CS6, VPL-EX1 and VPL-ES1 cannot be used without entering it.

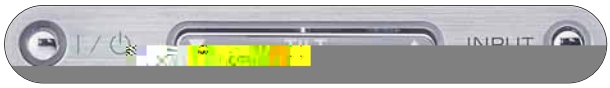
Optional Anti-theft Ceiling Mount kit

Apart from the Kensington compatible lock mechanism, the VPL-CX6, VPL-CS6, VPL-EX1 and VPL-ES1 have the optional anti-theft ceiling mount kit PSS-AT1 (for the first 3 models) and PSS-AT2 (for the VPL-ES1), which have been developed especially for extra security and peace of mind. Once the projector is mounted to the ceiling with it, the projector is locked to the mounting plate.

Convenient Supplied Remote Commanders

With the supplied remote commander RM-PJM12 for VPL-CS6 and VPL-CX6 and RM-PJ2 for VPL-EX1 and VPL-ES1, 4x Digital Zoom and Freeze functions are provided to highlight your presentations. Furthermore, Picture Muting*1 can be carried out with the RM-PJM12.

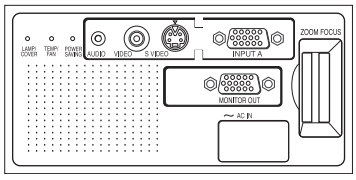
*1 The RM-PJ2 supplied remote commander of the VPL-EX1 and VPL-ES1 does not have this function.



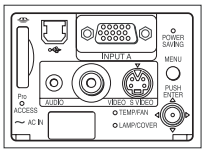
Control Panel (VPL-CX6/CS6/EX1)

Control Panel (VPL-ES1)

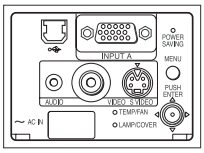
Connector Panels



VPL-ES1



VPL-CX6



VPL-CS6/EX1

Optional Accessories

Projector Lamp (for replacement)

LMP-C150 for VPL-CS6/CX6/EX1
LMP-E180 for VPL-ES1

Anti-theft Ceiling Mount kit

PSS-AT1 for VPL-CS6/CX6/EX1
PSS-AT2 for VPL-ES1

Signal Cables

SMF-402 (HD D-sub 15-pin to HD D-sub phono x 3, for component signal)

Specifications

	VPL-CX6	VPL-CS6	VPL-EX1	VPL-ES1
OPTICAL				
Projection system	3 LCD panels, 1 lens projection system			
LCD panel	0.7-inch p-Si TFT LCD panel with Micro Lens Array, 2,359,296 pixels (786,432 pixels x 3)	0.7-inch p-Si TFT LCD panel 1,440,000 pixels (480,000 pixels x 3)	0.7-inch p-Si TFT LCD panel with Micro Lens Array, 2,359,296 pixels (786,432 pixels x 3)	0.62-inch p-Si TFT LCD panel 1,440,000 pixels (480,000 pixels x 3)
Projection lens	1.2 times zoom lens, F1.8 to 2.1, f23.0 to 27.6 mm		1.2 times zoom lens, F1.8 to 2.15, f28.2 to 33.8 mm	1.2 times zoom lens, F2.2 to 2.4, f18.0 to 21.6 mm
Lamp	165 W UHP lamp			185 W UHP lamp
Screen coverage	40 to 150 inches*1			
Light output	2000*2 ANSI lumens*3	1800*2 ANSI lumens*3	1500*2 ANSI lumens*3	1500*2 ANSI lumens*3
Throwing distance (Screen size*1)				
40-inch	1.2 to 1.5 m (3.9 to 4.9 feet)		1.5 to 1.9 m (4.9 to 6.2 feet)	1.1 to 1.4 m (3.6 to 4.6 feet)
60-inch	1.9 to 2.3 m (6.2 to 7.6 feet)		2.3 to 2.9 m (7.5 to 9.5 feet)	2.7 to 3.2 m (5.6 to 6.9 feet)
80-inch	2.5 to 3.0 m (8.2 to 9.8 feet)		3.1 to 3.8 m (10.2 to 12.5 feet)	2.3 to 2.8 m (7.5 to 9.2 feet)
100-inch	3.2 to 3.8 m (10.5 to 12.5 feet)		3.9 to 4.8 m (12.8 to 15.7 feet)	2.9 to 3.5 m (9.5 to 11.5 feet)
120-inch	3.8 to 4.6 m (12.5 to 15.1 feet)		4.7 to 5.7 m (15.4 to 18.7 feet)	3.5 to 4.2 m (11.5 to 13.8 feet)
150-inch	4.7 to 5.7 m (15.4 to 18.7 feet)		5.9 to 7.2 m (19.4 to 23.6 feet)	4.4 to 5.3 m (14.4 to 17.4 feet)
SIGNALS				
Colour system	NTSC, PAL, SECAM, NTSC 4.43, PAL-M, PAL-N			
Resolution	VIDEO: 750 TV lines, RGB: 1024 x 768 pixels	VIDEO: 600 TV lines, RGB: 800 x 600 pixels	VIDEO: 750 TV lines, RGB: 1024 x 768 pixels	VIDEO: 600 TV lines, RGB: 800 x 600 pixels
Acceptable computer signals	RGB (fH: 19 to 92 kHz, fV: 48 to 92 Hz (up to SXGA + (fv: 60Hz)))	RGB (fH: 19 to 72 kHz, fV: 48 to 92 Hz (up to XGA + (fv: 85Hz)))	RGB (fH: 19 to 92 kHz, fV: 48 to 92 Hz (up to SXGA + (fv: 60Hz)))	RGB (fH: 19 to 72 kHz, fV: 48 to 92 Hz (up to XGA + (fv: 85Hz)))
Acceptable video signals	15 kHz RGB/component 50/60 Hz system, composite video, Y/C video			15 kHz RGB/component 50/60 Hz DTV system, composite video, Y/C video, Progressive Component 50/60Hz, (480/60i, 575/50i, 1080/60p, 480/60p, 575/50p, 1080/50i, 720/60p, 720/50p, 540/60p)
GENERAL				
Speaker	Max. 1 W (mono)			
Power requirements	AC 100 to 240 V, 50/60 Hz			
Power consumption	Max. 240 W, Standby 7 W	Max. 240 W, Standby 5 W		Max. 250 W, Standby 4.6 W
Operating temperature	0 to 35 °C (32 to 95 °F)			
Operating humidity	35 to 85 %			
Mass	Approx. 2.7 kg (5 lb 15 oz)			Approx. 2.8 kg (6 lb 3 oz)
Dimensions (W x H x D)	285 x 68 x 228 mm (11 1/4 x 2 3/4 x 9 inches)*4			295 x 78 x 238 mm (11 5/8 x 3 1/8 x 9 3/8 inches)*4
Heat dissipation	819 BTU			853.1BTU
INPUTS				
VIDEO IN				
Composite	Phono, 1.0 Vp-p ±2 dB, sync negative, 75 Ω			
Y/C IN	Mini DIN 4-pin			
Y	1.0 Vp-p ±2 dB, sync negative, 75 Ω			
C	Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω or 0.3 Vp-p ±2 dB (PAL), 75 Ω			
INPUT A				
Analogue RGB/Component	HD D-sub 15-pin (female)			
R/R-Y	0.7 Vp-p ±2 dB, positive, 75 Ω			
G	0.7 Vp-p ±2 dB, positive, 75 Ω			
G with Sync/Y	1.0 Vp-p ±2 dB, sync negative, 75 Ω			
B/B-Y	0.7 Vp-p ±2 dB, positive, 75 Ω			
SYNC/HD				
Composite sync	1.0 to 5.0 Vp-p, high impedance positive/negative			
Horizontal sync	1.0 to 5.0 Vp-p, high impedance positive/negative			
VD				
Vertical sync	1.0 to 5.0 Vp-p, high impedance positive/negative			
"Memory Stick" slot	x1	—		
USB	Up (B type female) and Projector Station (Up x 1)	Up (B type female)		—
AUDIO IN	Stereo mini jack, 500 mV rms, impedance more than 47 kΩ			
OUTPUTS				
Analogue RGB/Component	—			HD D-sub 15-pin (female)
R/R-Y				0.7 Vp-p ±2 dB, positive, 75 Ω
G				0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y				1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y				0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD				
Composite sync				1.0 to 5.0 Vp-p, high impedance positive/negative
Horizontal sync				1.0 to 5.0 Vp-p, high impedance positive/negative
VD				
Vertical sync				1.0 to 5.0 Vp-p, high impedance positive/negative
SAFETY REGULATIONS				
	UL, cUL, FCC Class B, IC Class B, NEMKO, CE (LVD), CE (EMC), C-Tick, CCC			
SUPPLIED ACCESSORIES				
	Remote Commander (RM-PJM12), Monitor Cable, USB Cable: A type to B type, Soft Case, AC Power Cord, Operation Manual, Quick Reference Sheet, CDROM (Application Software), Security label	Remote Commander (RM-PJM12), Monitor Cable, USB Cable: AA size Battery (2), Air Filter, A type to B type, AA size Battery (2), Air Filter, AC Power Cord, Operation Manual, Quick Reference Sheet, Security label	Remote Commander (RM-PJ2), Monitor Cable, Soft Case, Lithium Battery CR2025 (1), Air Filter, AC Power Cord, Operation Manual, Quick Reference Sheet, Security Label	

*1 Viewable area, measured diagonally.
*2 When the Lamp Mode is set to "High".
*3 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.
*4 Excluding all protruding parts.

Preset Data of Input Signals

	Memory Nº	Preset Signal		fH (kHz)	fV (Hz)	Sync
VPL-EX1 / CX6	1	Video 60 Hz		15,734	59,940	—
	2	Video 50 Hz		15,625	50,000	—
	3	15 K RGB/Component 60 Hz		15,734	59,940	S on G/Y or Composite sync
	4	15 K RGB/Component 50 Hz		15,625	50,000	S on G/Y or Composite sync
	5	—		—	—	—
VPL-ES1 / CS6	6	640 x 350	VGA mode 1	31,469	70,086	H-pos, V-neg
	7		VGA VESA 85 Hz	37,861	85,080	H-pos, V-neg
	8	640 x 400	PC-9801 Normal	24,823	56,416	H-pos, V-neg
	9		VGA mode 2	31,469	70,086	H-neg, V-pos
	10		VGA VESA 85 Hz	37,861	85,080	H-neg, V-pos
	11	640 x 480	VGA mode 3	31,469	59,940	H-neg, V-neg
	12		Macintosh 13"	35,000	66,667	S on G
	13		VGA VESA 72 Hz	37,861	72,809	H-neg, V-neg
	14		VGA VESA 75 Hz	37,500	75,000	H-neg, V-neg
	15		VGA VESA 85 Hz	43,269	85,008	H-neg, V-neg
	16	800 x 600	SVGA VESA 56 Hz	35,156	56,250	H-neg, V-pos
	17		SVGA VESA 60 Hz	37,879	60,317	H-neg, V-pos
	18		SVGA VESA 72 Hz	48,077	72,188	H-neg, V-pos
	19		SVGA VESA 75 Hz	46,875	75,000	H-neg, V-pos
	20		SVGA VESA 85 Hz	53,674	85,061	H-neg, V-pos
	21	832 x 624	Macintosh 16"	49,724	74,550	H-neg, V-neg
	22*	1024 x 768	XGA VESA 43 Hz	35,524	43,479	H-neg, V-pos
	23		XGA VESA 60 Hz	48,363	60,004	H-neg, V-pos
	24		XGA VESA 70 Hz	56,476	70,069	H-neg, V-neg
	25		XGA VESA 75 Hz	60,023	75,029	H-neg, V-pos
	26		XGA VESA 85 Hz	68,677	84,997	H-neg, V-pos
	27	1152 x 864	SXGA VESA 70 Hz	63,995	70,016	H-neg, V-pos
	28		SXGA VESA 75 Hz	67,500	75,000	H-neg, V-pos
	29		SXGA VESA 85 Hz	77,487	85,057	H-neg, V-pos
	30	1152 x 900	Sunmicro LO	61,795	65,960	H-neg, V-neg
	31		Sunmicro HI	71,713	76,047	Composite sync
	32	1280 x 960	SXGA VESA 60 Hz	60,000	60,000	H-neg, V-pos
	33		SXGA VESA 75 Hz	75,000	75,000	H-neg, V-pos
	34*	1280 x 1024	SXGA VESA 43 Hz	46,433	43,436	H-neg, V-pos
	35		SGI-5	53,516	50,062	S on G
	36		SXGA VESA 60 Hz	63,974	60,013	H-neg, V-pos
	37		SXGA VESA 75 Hz	79,976	75,025	H-neg, V-pos
	38		SXGA VESA 85 Hz	91,146	85,024	H-neg, V-pos
VPL-ES1	43	480/60p	480/60p (double frequency of NTSC)	31,470	60,000	S on G
	44	575/50p	575/50p (double frequency of PAL)	31,250	50,000	S on G
	45	1080/50i	1080/50i	28,130	50,000	
	47	720/60p	720/60p	45,000	60,000	
	48	720/50p	720/50p	37,500	50,000	
	50	540/60p	540/60p	33,750	60,000	
	52	1400 x 1050	SXGA + 60Hz	63,981	60,020	H-pos, V-pos

*Memory number 22 and 34 shows the interface signal.

NOTES

Within the range of the frequency specification, if any signals other than the preset listed above are input, the projector will recognise it as an unknown signal. The projector calculates the V lines of this signal, then searches (from the list below) and displays the closest one to the unknown signal. If the resolution of the unknown signal is not listed below, the picture may not be displayed properly. Additionally, if the resolution exceeds the maximum resolution of each model, the signal is displayed at the projector's maximum resolution.

640x480
800x600
1024x768
1152x864*
1280x960*
1280x1024*
1400x1050*

* VPL-EX1/VPL-CX6 only.

Maximum input signal resolution
VPL-ES1/CS6: XGA 1024x768 fV: 85Hz
VPL-EX1/VPL-CX6: SXGA+ 1400x1050 fV: 60Hz

The projector detects the frequency of the input signal and finds the corresponding preset data. However, the frequency of the SXGA 60Hz (1280x1024) and SXGA+ 60Hz (1400x1050) are very close and the projector cannot differentiate them – it finds the correct preset data by detecting the different picture sizes. If the full image is not displayed on the screen (ie there are black edges around the image) when the signal is input or the channel is switched, the projector has not recognised the correct preset data. To resolve this, pull off and plug in again a signal cable to the projector or switch to another input channel and return to the previous channel - the projector starts detecting again.

ECO INFO

– Lead-free solder is used for soldering.
– Halogenated flame retardants are not used in cabinets.
– Polystyrene foam for the packaging cushions is not used in packaging.

Memory Stick Media Compatibility Chart

	Recording/ Playback
Memory Stick Memory Stick (with memory select function) Memory Stick Duo	O
Memory Stick ROM	O*1
MagicGate Memory Stick MagicGate Memory Stick Duo	O*2
Memory Stick PRO	O*3

* 1 Data stored in Memory Stick ROM is read-only and cannot be changed.

* 2 Data recording/playback that requires MagicGate functions cannot be performed.

* 3 Memory Stick PRO Media slot tested to support up to 1GB media capacity.

Operation is not guaranteed for Memory Stick PRO beyond this capacity. When using a "Memory Stick Duo" in VPL-CX6, always insert the "Memory Stick Duo" into the sold separately "Memory Stick Duo" adaptor. If you insert a "Memory Stick Duo" without the "Memory Stick Duo" adaptor, you may be unable to remove the "Memory Stick Duo". Not all types of Memory Stick media are guaranteed to operate. Memory Stick PRO features vary by and are dependent upon the design of host hardware devices.

Memory Stick PRO Media slot:

- does not support high speed data transfer;
- does not support MagicGate copyright protection technology;
- does not support access control security function.

Smart Presentations

Present with Memory Stick® Media (VPL-CX6 only)

Why count on an external computer? With high-performance Memory Stick media, including the new-format, higher-capacity Memory Stick PRO™ media, you can give PC-less presentations that run direct from your projector. Showing Microsoft PowerPoint presentations, TIFF and JPEG files, and even digital photos*1 is quick and easy. Control functions such as AutoRun and Start Up functions allow you to set up and start presenting instantly, without connecting to a PC – making your presentations look even more professional.

* 1 Digital files complying with the DCF standard are supported.

Simply drag & drop your files on the Memory Stick

Easy File Preparation for Still Pictures and Movies (VPL-CX6 only)

You can easily create slide shows or on-screen movies by using a JPEG still-picture file or an MPEG-1 movie file. PowerPoint (PPT, PPS) presentations, BMP, TIFF and JPEG files can be edited and saved on Memory Stick media*1 with drag-and-drop simplicity*2 using the supplied Sony Projector Station software*3. Even files of different formats can be automatically combined into a single file.

* 1 Memory Stick media can display the following MPEG-1 movie formats: MPEG MOVIE, MPEG MOVIE EX, MPEG MOVIE CV, MPEG MOVIE HQ, MPEG MOVIE HQX, MPEG MOVIE AD, and MPEG1 from Sony VAIO® Giga Pocket™ devices (equivalent to a Video CD).

* 2 All files are converted to JPEG format.

* 3 Projector Station software is supplied with VPL-CX6 only. Projector Station software requirements: Microsoft Windows® 98, Windows 98 SE, Windows Me, Windows 2000 or Windows XP.

RM-PJ2

RM-PJM12

USB Compatibility, Remote-Control Convenience

The VPL-CX6, VPL-CS6, and VPL-EX1 projectors are all USB-ready. In addition, the VPL-CX6 and VPL-CS6 are supplied with a dedicated remote commander (RM-PJM12) that offers an integrated wireless mouse function for point-and-click control of your USB-connected computer. The VPL-EX1 and VPL-ES1 are equipped with a cardsize remote commander (RM-PJ2)*1. Both remote commanders are equipped with keys that enable users to control multiple functions quickly and easily, providing seamless presentations that keep your audience involved.

*1 The RM-PJ2 does not support the wireless mouse function.

Projector Station Software (VPL-CX6 only)

Connect a PC running Sony Projector Station software*1 to your projector's USB port and you can select input and Picture Muting from your PC. And if your presentation materials have been assigned to the software beforehand, they can be opened instantly.

*1 Projector Station software is supplied with VPL-CX6 only. Projector Station software requirements: Microsoft Windows® 98, Windows 98 SE, Windows Me, Windows 2000 or Windows XP.

Wide Range of Powerful Inputs

The VPL-CX6, VPL-CS6, VPL-EX1 and VPL-ES1 projectors have built-in scan converters, so they can accept composite video, component video or RGB video input signals. The VPL-CX6 and VPL-EX1 also accept PC signals up to SXGA+, while the VPL-CS6 and VPL-ES1 accept signals up to XGA resolution. In addition, the VPL-ES1 can accept DTV and HDTV signals as well as progressive component signals.

Sony address/contact details/dealer stamp

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SONY BUSINESS EUROPE

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CA VPL-CX6/CS6/EX1/ES1/GB-20/10/2003